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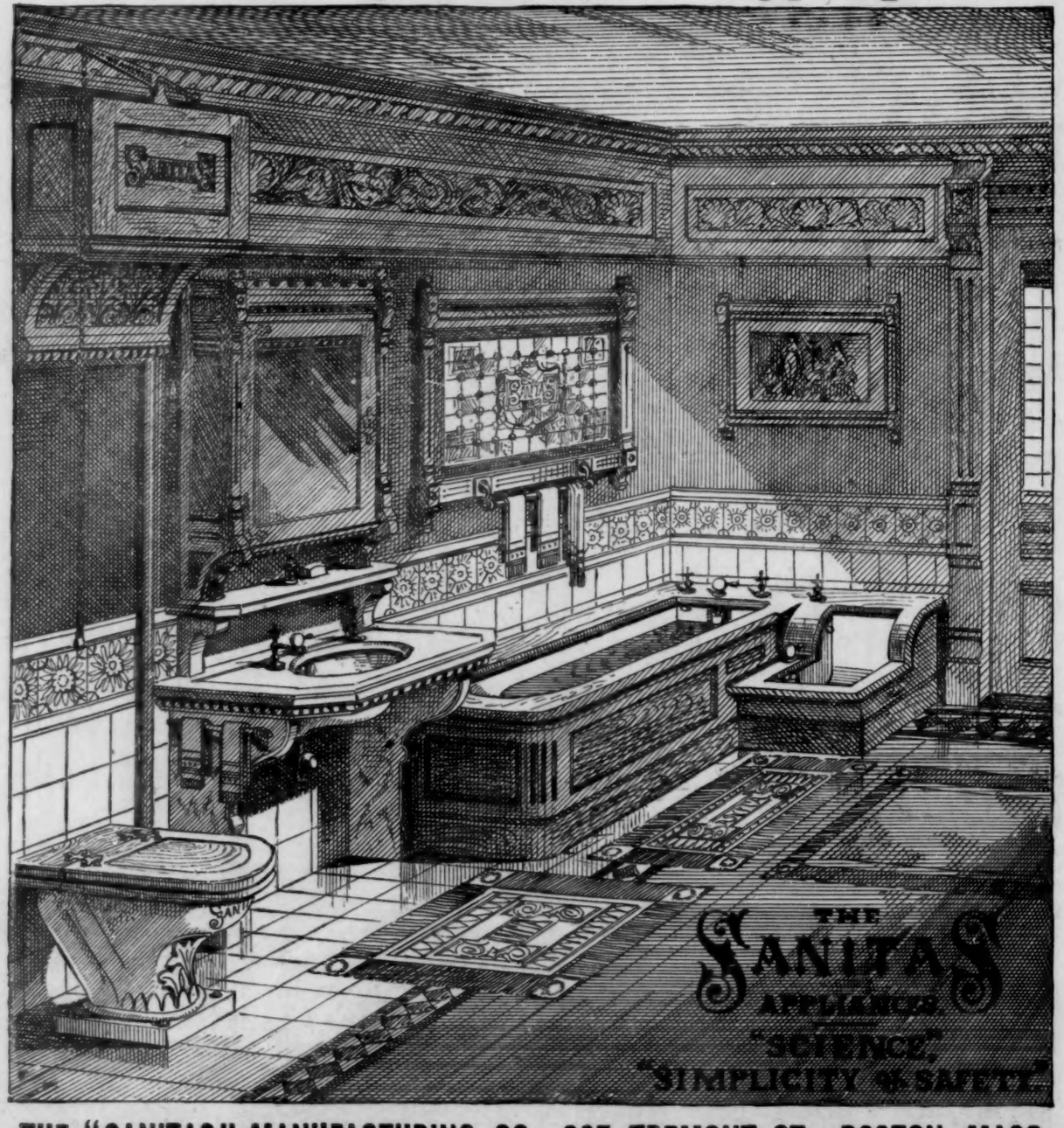
SANITAS ❁ PLUMBING ❁ APPLIANCES



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BY the death of General Quincy A. Gillmore, which occurred in Brooklyn, N. Y., last week, the country loses an admirable example of the sort of thorough and intelligent scientific as well as military men which our West Point training tends to develop. General Gillmore was born in Ohio in 1825. He graduated at West Point with high honors in 1849, and was assigned to duty as officer of engineers, assisting in the construction of the great Fortress Monroe, as well as other fortifications. Returning to West Point, he served for three years as instructor in military engineering, and was afterwards detailed to supervise the construction of various forts on the Atlantic coast. During the war he displayed a courage in action, as well as military skill, which gained for him the rank of Major-General, with the command, first of an army corps, and then of the Department of the South. The return of peace gave him leisure for private business, and, besides the Government work with which he was always intrusted, he was chief engineer of the Kings County Elevated Railway, and a commissioner for the new Croton Aqueduct. Amid his many occupations, civil and military, he found time to write some of the most useful books on engineering subjects in existence. His work on "*Limes, Mortars and Cements*," is the best general treatise on the subject that the American student can obtain, and his little octavo book on "*Roads*" is also full of just such information as architects and engineers require. Besides these two, which are found in the library of nearly every engineer, and of very many architects, he wrote two or three treatises on some of the military operations of the war.

ACCORDING to the New York *Times*, the promise of the beginning of the season has been kept, and the present season bids fair to be one of the most disastrous that the insurance interest in New York has ever experienced. According to the official statistics for last year of twelve of the best known companies in New York and Brooklyn, while their income from premiums was less than eight million dollars, their disbursements amounted to about nine and one-half millions, leaving a net loss of more than a million and a half dollars, of which one company, the Phœnix, of Brooklyn, lost eight hundred and fifty thousand, and the Continental about three hundred and twenty thousand. Many, even of the strongest companies, materially diminished their surplus by the year's business, and it is said that two of them were obliged to assess their stockholders during the year to make good inroads upon their capital. This season the prospect seems to be worse than ever. Besides the extraordinary frequency and destructiveness of fires, the New York Tariff Association has been dissolved and reckless cutting of rates is everywhere practised. Insurance on city dwelling-houses, which a few years ago was uniformly held at twelve dollars and a half per thousand for five years, has this year been extensively sold at one dollar and a half per thousand for the same term, or less than one-eighth the former rates, and mercantile and manufacturing risks are rapidly taken at half the premiums charged by the old tariff. It is gratifying to observe that this condition of the insurance business, however unpleasant to the underwriters, has already led to a care on their part as to the character of the risks they insure, which was formerly unknown. The more narrowly the insurance companies are compelled to count the chances of loss by fire, in a given structure, the more they and the owners for whom they insure will learn to appreciate the care and knowledge of a conscientious architect, and we shall hope before long to see decided evidence of a disposition, which, indeed, is already indicated by certain symptoms on the part of the underwriters to come to a better understanding with the architects; and, instead of showering objurgations on them on all public occasions, to point out to owners the value of careful planning and design; to make it worth while, by allowances in premium rates, for owners to employ architects who can give them such planning and design, and, where possible, to discuss points of construction with the profession, and join in making needed experiments upon new materials or methods of building.

WE are requested to call attention to the series of prize essays, prepared under the invitation of the American Public Health Association, at the expense of Mr. Henry Lomb, of Rochester, who devised this way of placing the best information on sanitary subjects before his fellow-citizens in the most available shape. The series, as so far published, consists of four pamphlets; the first on "Healthy Homes and Foods for the Working Classes;" the second on "The Sanitary Conditions and Necessities of School Houses and School Life;" the third on "Disinfection and Individual Prophylaxis against Infectious Diseases," and the fourth on "Preventable Causes of Disease, Injury and Death in American Manufactories and Workshops." The first of the series is by Professor Vaughan, of the University of Michigan; the second by Dr. D. F. Lincoln, of Boston; the third by Dr. Sternberg, of the United States Army; and the fourth by Mr. George H. Ireland, of Springfield, Mass., and it is hardly necessary to say that all of them contain, condensed in small space, an immense amount of the most useful information. We shall have occasion later to speak of some of the special points, but the books themselves should be in the hands of all those who have any interest in the subject on which they treat. With true generosity and consideration, Mr. Lomb provides for the sale of the books at a cost which barely pays the expense of printing, No. 1 being sold, in English or German, for ten cents, while the other three cost five cents each; and Dr. Sternberg's work on infectious diseases can be had in English, German, French or Flemish.

MR. THOMAS FLETCHER, of Warrington, England, whose name and address ought to be kept in mind by those interested in the science of heating, has devised a new method of using a gas flame, which, by means of a sort of blow-pipe, can be made to melt a hole in a few seconds through a plate of iron or steel a quarter of an inch thick. Even thick plates, with a little longer time, can, as the *British Architect* says, be penetrated by the blow-pipe flame as readily as a wooden door is pierced by a carpenter's tool. Ordinary people do not have much occasion for melting holes in iron plates, but, as has already occurred to a great many people in England, burglars and bank-robbers will find Mr. Fletcher's blow-pipe a valuable addition to their kit, and we may expect to see it utilized by them at once, just as they have already appropriated one of his earlier designs for furnaces, to enable them to melt down silver-plate more readily. The *British Architect* says that several bankers have already visited Mr. Fletcher's workroom to study the blow-pipe and consider whether any protection against it can be devised; but they do not seem to meet with much comfort. Mr. Fletcher says that he shall manufacture the blow-pipe in such a way that it will make a good deal

of noise in use; but he acknowledges that it can be constructed so as to act noiselessly, and some ingenious burglar will be very likely to discover a way of making this modification.

IN a recent number of *La Semaine des Constructeurs* M. César Daly describes in his characteristically graceful way a conversation with the great Henri Labrouste, which took place many years ago in the modest apartment of the founder of the *Revue Générale d'Architecture.* During the precarious infancy of the new journal, M. Daly lived in his editorial rooms, sleeping on a sofa among his books, and comforting his anxieties by little Thursday evening receptions, which were attended by many architects, artists and literary men of the highest distinction. Among the visitors was Labrouste, before whom one evening a discussion took place upon the merits of the mediæval architecture, which Viollet-le-Duc and others were just beginning to describe and explain. Labrouste was always much more of a listener than a talker, and on this occasion he listened intently, but went away without expressing any opinion. Two days later M. Daly was surprised at receiving a visit from Labrouste, who had been thinking over the discussion of Thursday evening, and had come to talk about it. Daly began the conversation by recalling Labrouste's well-known saying, that "Architecture is Ornamented Construction," and asked the other whether he considered this definition broad enough to include all architectural art. The great architect of the Bibliothèque Sainte-Géneviève, the inventor, we might say of a style which has not yet finished its career, replied earnestly that truthfulness was, in his belief, the foundation of the art of architecture. A deception, he said, was not only repulsive to him, but he believed that insincerity in art, as in everything else, was incompatible with lofty inspirations. Daly questioned him closely on this point, and finally proposed to him an example. From the marble mantel near which they were sitting a chip had been detached. It was necessary to cement it on again, and Daly asked Labrouste whether, in such a case, he would encourage the stone-cutter to manage the joining so as to imitate a vein in the marble block. Labrouste reflected a while on this question, but finally replied that he could not approve even this innocent deception, on the ground that its effect upon his own and other persons' minds would be demoralizing, and therefore unfriendly to true art. Whether he would say so now, after forty years of struggle in the architectural world to reconcile the "Truth in Art" maxims with real comfort and convenience, it would be hard to say; but Labrouste is at least entitled to the credit of having pursued his idea with an ardor which still gives the strongest impression to the students of his work.

AFTER so many years of waste and contempt, the slag from iron furnaces seems likely to become of some use in the world. Already it has been successfully employed in Lyons in the shape of bricks, cast into shape, and it has for some years been used, in a pulverized condition, in place of sand for lime mortar. Very recently, however, its application to mortar-making has undergone a change. Its chemical composition has always seemed to adapt it for uniting more closely with lime than it can when employed simply as sand; and it has now been found that, when ground very finely and carefully with lime, it forms a cement very similar to Portland cement, and nearly as good. As the iron slag is a waste product, which can be had for nothing in enormous quantities, while it is easily pulverized, and, for making the new cement, requires none of that subsequent baking and repulverizing which forms the Portland cement process, the new material ought to be extremely cheap, and if it is good, the art of building will have acquired a new and very useful material.

THE *Sanitary Engineer* quotes from the *Chronique Industrielle* an account of the fall of a meteor in Cochin-China.

One evening, last autumn, the French officials at a post in that county observed a large meteor moving from west to east, which remained visible for about thirty seconds. A few days later a letter was received by the French Governor of the province from a local magnate in the district to the eastward, mentioning that, on the same evening that the meteor was seen, an unknown animal had stopped there in its flight, ploughed up the ground for a considerable distance, and then disappeared in the sky. One of the officers, with a missionary attached to the station, immediately proceeded to the ground and found the tracks of the "unknown animal," consisting of a pear-shaped furrow twenty feet wide, about a hundred feet long, and six feet deep, out of which the earth had been thrown with great violence. The bottom of the furrow was smoothly cut, without any trace of the foreign body which had ploughed it. Careful measurements were taken, which, when analyzed, showed that the cavity must have been produced by the impact of a heavy body which had subsequently bounded off. The weight of the flying body, it was estimated, must have been two thousand eight hundred and ninety-five tons, its maximum diameter twenty-six feet, and its length one hundred feet. The velocity of its flight at the moment of impact must have been two thousand metres per second, or about five thousand miles an hour. After striking the earth, its velocity was slightly retarded, but it left the ground with a leap which, it was calculated, must have extended over a distance of seven hundred miles, landing the projectile, at its next ricochet, in the middle of the China Sea.

IF there is anything more surprising than the explosive force of nitro-glycerine, it is certainly the carelessness with which that substance is handled. It is well-known that nitro-glycerine freezes at a temperature considerably above the freezing point of water, and scores of accidents have resulted from the reckless methods employed for thawing it. Years ago, when pure nitro-glycerine was used for blasting, a workman in Germany found one morning his can of explosive material frozen. Being in a hurry to begin work, he returned to the house, heated a poker red-hot, and started off to thaw the nitro-glycerine with this instrument. It is hardly necessary to say that he succeeded to perfection, the nitro-glycerine changing its condition with an energy which pulverized not only the operator, but all other surrounding objects. A few days ago, according to *Fire and Water*, five miners in Michigan brought a bent gas-pipe to a blacksmith's shop, where it was heated and straightened. Without waiting for it to cool, they then filled it with dynamite, which immediately exploded, killing them all. Almost at the same moment a man in New Jersey brought some blasting cartridges, to thaw them out by a fire. He accomplished this result by holding them on the flame for a suitable period, and is supposed to have dropped one during the process, for his remains were found in a fragmentary condition sixty feet away. At Richmond, Indiana, on the same day, six tons of dynamite, which had been stored on a farm, exploded, blowing a horse and wagon to pieces, excavating a pit fifteen feet deep, and twenty-five feet in diameter, injuring a woman a quarter of a mile away, and breaking every window in a neighboring village.

AS the exhibition of the drawings for the New Boston Public Library just opened at the Old State House in that city is but a fleeting show, we call attention to it to-day although we propose to consider the matter from another point of view in a subsequent issue, and we trust that all draughtsmen and as many laymen as possible will visit the exhibition, and judging by the steady stream of visitors that passes into the room there is a fair chance that some of the lessons the occasion presents may be remembered. Here are the drawings, the perspectives, the elevations, the plans and "such other drawings or models as the competitor may choose to present," that building-committees in search of designs for some costly building used so blandly to call upon architects to furnish for their inspection and selection, on the understanding that what the Committee is pleased to call the prize-designs shall become the absolute property of the Committee in return for sums which will, in most cases, barely cover the mere cost of the drawings. It hardly seems possible that the average committee-man, who though he may not know how long it really takes to put line upon line is generally a man of good common sense, can see such an exhibition as this and not understand that here is shown work that it has cost the architects not only hundreds but probably thousands of dollars to produce, while it is only the beginning of the work that must be done in the way of drawing alone. Time, study, calculations, correspondence, superintendence and all the other things which are to be paid for by the usual commission are but vaguely suggested to the lay mind by what is here shown, though surely the big piling-plan must hint that an architect's life is not all cakes and ale, that he has other things to consume his time and require his anxious consideration than the making of pictures — even so notable a one as that rendered by Mr. Langerfeldt in his best style — which is but the last of a series of three elaborate perspective studies.

MEMORIALS TO CAPTAIN NATHAN HALE.[1]—II.

Model for Statue of Nathan Hale. E. S. Woods, Sculptor.

For the past thirty years there has been an occasional allusion in newspapers to the necessity of fitly remembering Hale by a statue, and that was all. A few years ago when Cyrus W. Field, was active in erecting and re-erecting his monument to commemorate the spot where André met his fate, there came into existence, especially in Connecticut, a kind of protesting vitality against Mr. Field's too ardent endeavor, and in favor of "doing something for Hale" in the way of remembrance as an offset. At first, a plain shaft was proposed, and upon which, as its chief distinction, a long and flourishing inscription was to be placed. The production of the inscription closed these efforts for this memorial. As long ago as 1870, a distant connection of Hale, who felt that his fame had been neglected, urged an American sculptor in Paris to study the subject and make sketches of a statue, in the hope that prominent men in Connecticut would interest themselves in carrying the matter to a worthy conclusion. The sculptor heartily entered into the proposition, but receiving neither private or public encouragement, the project was abandoned.

At the centennial celebration of the battle of Groton Heights, in September 1881, the Rev. E. E. Hale delivered an address on Nathan Hale. At its close, Mr. J. J. Copp, secretary of the Centennial Committee, proposed a resolution "that the Connecticut legislature be memorialized to appropriate funds for the erection of a statue to Nathan Hale, the Martyr Spy, in the Capitol at Hartford. The resolution was unanimously endorsed by the audience, and Senator J. R. Hawley, Ex-Governors R. D. Hubbard, and Charles R. Ingersoll, Rev. Dr. Leonard Bacon, Mayor Robert Coit, and Hon. T. M. Waller were appointed a committee to assume charge of matters relating to the resolution.

It is also stated in the Hartford papers that in a memorial address at New Haven in 1881 the Hon. R. D. Hubbard suggested that a statue of Hale be placed in the Capitol. A resolution to this effect was introduced during the legislative session of 1882 and Messrs. Waller, Hubbard and Coit were appointed a committee to procure a statue, but nothing was done. At the session of 1883, in support of a like resolution, introduced by Hon. E. S. Cleveland, Hon. R. D. Hubbard delivered an address, which, for dramatic character, deep and pathetic understanding and appreciation of the part which Hale acted, for eloquence and conciseness, and the realization of the high mark set by Hale in his life and death as an example to his countrymen, stands alone, of its kind, in American oratory. It brought the martyr back, after a hundred years of oblivion, a living presence to the sons and grandsons of his own generation. Nor did he well remain even as an inspiration, for, quite forgetting the strange and wondrous vision, the pitiful sum of five thousand dollars was doled out to buy a bronze image of what they had seen but had not understood. Hale returned to the shades and the burning words of the orator followed him.

For various reasons, death and otherwise, the committee on the statue was changed during the first years of its history until it finally became composed of the Governor (chairman *ex officio*), Hon. R. Coit, Hon. H. Barnard, C. D. Warner and E. S. Cleveland. This committee advertised for models in public competition, and then began a history so foreign to honor and decency that for the credit of the State and the majority of the committee that represented it, we would stop here were it not that some points in it are worth alluding to.

Three competitors offered models for a statue larger than life, Conrad, Gerhardt and Woods, all of them living in Hartford. The model of the first was discarded, leaving the contest between the last two. Seeing that the committee were actuated solely by political and personal influence, Mr. Barnard made every effort to have the competition conducted upon the art merits of the models presented. His efforts, extending over a period of nearly four years, were balked at every step. He travelled from New York to Boston, inviting sculptors of reputation to make a sketch, assuring them that so far as he was concerned, they should be treated fairly. He met with refusal everywhere. The general feeling among those he consulted was not in favor of the way competitions were carried on, and besides, the contention over the Hale had already become unsavory.

In order to the better understanding of the character of this contest and its eventful result, it is necessary to speak of the two competing sculptors.

Mr. Gerhardt was the protegé of "Mark Twain" and had lately returned from Paris, where he had been studying for a year or two in the Government school of fine arts, having been sent there by the distinguished humorist. Mr. Woods, a native of Nova Scotia, was entirely untaught in the art of sculpture, though he had practised it during spare hours taken from his other work for some ten years. A few busts and bas-reliefs comprised his productions in this art.

Both of these sculptors made several sketches each, large and small, of their proposed statues of Hale. The committee did not decide in favor of either model, because Mr. Barnard was determined that his decision should be given in favor of the best model, independent of any external influence and supported by the judgment of those who knew more than he did of the subject under consideration. Matters ran along in this way until 1885, when the Hon. H. B. Harrison, of New Haven, was elected Governor. He then became a member of the committee, and the legislature of that year added to it the Rev. Francis Goodwin, of Hartford. This gave new life to the committee, and, pushed on by one influence and another, it set to work to accomplish something. In the meantime, Mr. Gerhardt had retired his model and the committee gave him eight weeks to make another. New political influences had also entered into the contest. Governor Harrison was also desirous that the models should be examined by an expert, and at his request Mr. Olin M. Warner, the sculptor, of New York, was invited to come to Hartford and perform this task.

Previous to this Mr. Barnard had described the models of both contestants to artists in New York and Boston, and all had decided that Mr. Woods's was the only one entitled to any serious consideration. The latter's was always open to and was seen very generally by the public, while the model of Mr. Gerhardt was only shown to the committee and his friends. Mr. Warner came to Hartford, saw the model with Governor Harrison, and gave his opinion that the one by Gerhardt was the best. The majority of the committee agreed with it and gave Mr. Gerhardt the commission for the statue in November, 1886, three years after the appropriation was made. Satisfied that this decision was not just and that the result would substantiate his judgment, Mr. Barnard refused to sign the contract.

"Pro Patria." M. J. A. Mercie, Sculptor.

The statue, nearly eight feet high, was cast in bronze in Chicopee, Mass., and was unveiled in the Capitol in Hartford June 14, 1887.

Three days before this, June 11th, *Harper's Weekly* published a wood-engraving of the statue, accompanied with an explanatory and complimentary article. It thus discourses of the artist and his long looked-for work:

"It is the work of Karl Gerhardt, a young sculptor of Hartford, who pursued his studies in Paris under the best masters, and returned to this country with their highest commendation, and has already

[1] Continued from page 173, No. 642.

made good their prophecies of his success. He has recently sent to the foundry in this city an equestrian statue of Israel Putnam, destined to stand in his native town of Brooklyn, Conn. (also a commission from the legislature), which is thought by those who have seen it in plaster to be a work of uncommon dignity and beauty. Needless to say that if Mr. Gerhardt has succeeded in the rarest of all artistic achievements, an equestrian statue — for the wide world has few good ones — he takes his place at once among the first American artists. As the artist had no portrait to guide him, he has been free to make a heroic figure of a youth, of the New England type in features, and to give him that fire and action which his character revealed in his exploit seems to require. As it could not be a portrait statue, the figure itself must tell the story."

Referring to Hale's last words, the article continues:

"They are the key-note of the artist's treatment. Unwilling to perpetuate the ignominy of his execution, he has seized the moment when Hale may be supposed to have said these words — erect, facing his captors with flashing eyes, his hands thrown back in token at once of self-sacrifice, surrender and triumph. The action, to be sure, is momentary, but in no other way than by some action could the artist tell his story. The attitude is noble, the face full of the expression of the heroic mind, the whole figure instinct with it. So perfectly has the artist infused the bronze with the sentiment of this noble utterance that even the shoulders and back declare it. We hear that a *replica* of this statue, with a slight change in the pose, will be set up in New York."

In its report of the ceremony of unveiling, at which less than two hundred persons were present, and only three members of the committee, the Hartford *Courant* says:

"The desire for a simple ceremony that should have intellectual rather than spectacular interest was admirably carried out. There was no procession, no music, and no display, but those who were present will remember the order followed as one that appealed immediately to their sense of fitness, propriety and dignity."

The presentation address was made by one of the committee, Mr. C. D. Warner. Of the statue the orator observed:

"To-day in all its artistic perfection and beauty it stands here to be revealed to the public gaze." . . . "This is not a portrait statue. There is no likeness of Nathan Hale extant. The only known miniature of his face, in the possession of the lady to whom he was betrothed at the time of his death, disappeared many years ago. The artist was obliged, therefore, to create an ideal figure, aided by a few fragmentary descriptions of Hale's personal appearance. His object has been to represent an American youth of the period, an American patriot and scholar, whose manly beauty and grace tradition loves to recall, to represent in face and in bearing the moral elevation of character that made him conspicuous among his fellows, and to show forth, if possible, the deed that made him immortal. For it is the deed and the memorable last words that we think of when we think of Hale." . . . "For all the man's life, all of his character, flowered and bloomed into immortal beauty in this one supreme moment of self-sacrifice, triumph, defiance."

After presenting the statue to Governor Lounsbury, Mr. Warner closed his address by saying, "Let the statue speak for itself."

Nathan Hale, in the Capitol, Hartford, Conn. Karl Gerhardt, Sculptor.

The Hartford *Times*, in its description of the ceremonies, alluded to the meagre attendance; to the claim that Hale's memory had to the remembrance of his countrymen; suggested these facts as the strongest possible argument for the study of the history of the United States, but made no reference whatever to the statue.

The Hartford *Post* of June 14, had the following criticism:

"Although no portrait of Hale is in existence, one who knew him gave our fellow-townsman, I. H. Stuart, information which he placed in his little book on the martyr-spy. The features are there thus given: 'Full face, light blue eyes, light rosy complexion and hair of a medium brown.' The ordinary observer can quickly tell whether there has been any attempt to make the face of the statue like Hale's. It is long, not full, and the eyes are dark holes, portraying the blackest. Light blue eyes can be approximated even in bronze. An inspired article in *Harper's Weekly* mentions the absence of portrait as an excuse for making free with 'a heroic figure of youth of the New England type in features.' But it is no excuse for not bringing a statue of Hale to the highest portraiture point possible from tradition and record — to say nothing of the remarkable freedom with which 'the New England type' has been maltreated. The observer to-morrow should look at the design of the nose, at the length and breadth of the neck — all out of proportion — and undeveloped back of the head, with the absence of character. The young man whom Connecticut and the nation delights to honor was of an intellectual and athletic cast. There are few marks of intellect in the face; the phrenologist as well as the anatomist is certainly abroad so far as Mr. Gerhardt is concerned.

"But though the face, head and neck are out of proportion and show nothing that Hale possessed (except perhaps the very pretty mouth that must have been one of his attractions in ladies' eyes) there is something more flagrantly unjust to him. Mr. Stuart records from tradition and history that 'in height he was about five feet and ten inches, and was exceedingly well proportioned. His figure was elegant and commanding. He had a full, broad chest. . . . The elasticity of his frame is well attested by feats which he used frequently to perform in New London. He not only, says Colonel Green, would put his hand upon a fence as high as his head and clear it easily at a bound, but would jump from the bottom of one empty hogshead over and down into a second, and from the bottom of the second over and down into a third, and from the third over and out like a cat.' An example of long jumps on New Haven green when he was a student is given together with his love for wrestling matches when in the army.

"What sort of a figure has the artist given? That of a deformed man who could not have done the feats recorded of Hale.

"Instead of the 'full, broad chest' the breadth is very much less than standard normal — to say nothing of Hale's true proportions. The shoulders have no graceful curve where they join the neck, and are not equal in their unevenness. The hips are deficient; the legs have no shapeliness; there is no elasticity in the feet; the muscles of the calves are misplaced; the ankles are out of proportion; the shoe-counters cut cruelly into the flesh. The hands are those of a hard-working, unsensitive person; veined like a workingman's and as if the person delineated were forty years years of age instead of

twenty-one. Whether the spirit of the statue — the idea it embodies — can excuse these defects of modelling can be decided by the observer. The attitude is as if the bronze had seen its father's ghost or were complaining that its hands had been soiled.

"An unfortunate thing concerns the pedestal. The martyr-spy's last words run down hill towards the north, at a grade of say a quarter of an inch. This 'out of level' is easily noticeable.

"A replica of the statue, it is said, will be set up in New York with a slight change in the pose. We understand that the hands will be tied behind instead of being allowed to run riot in the present fashion."

The Hartford correspondent of the New York *Tribune*, writes thus:

"Not one word of favorable comment has been said in any of the local papers about the statue of Nathan Hale unveiled at the Capitol Thursday. It is disappointing even to the friends of the sculptor, Mr. Gerhardt."

The New Haven *Register* of July 2, 1887, alluded to Mr. C. D. Warner as a eulogist of the sculptor, to his apologetic explanation of the statue in his address, and criticised him for the questionable taste he had displayed in encouraging and sanctioning the production of a statue, that it pronounced worse than the "Custer" at West Point, or the "Morse" in Central Park, two statues that have been hidden from the public gaze because of their repulsiveness. It also reflects severely upon the misguided judgment of Warner the sculptor.

"Quand Meme." M. J. A. Mercie, Sculptor.

Regarding the anticipatory encomiums of the article in *Harper's Weekly*, it says:

"From every fine interpretation, both literary and artistic of Hale's last words, and as a just estimate of his character, there is only one conclusion to be reached in regard to his conduct during those indescribable moments when he gave expression to that immortal sentence. It would not be that he was straining his body like a boor, and gesticulating like a poor actor. The gibbet is not an encourager of bravado.

"There is no doubt, however, about what the figure means. It tells its story in unmistakable language. It is the story of a culprit; a conscious thief, who thinks that his crimes are not known, and that his willing offer to be searched will prove his innocence."

Of the assertion that "the very shoulders and back of the statue" declare the perfection of the artist's infusion into his bronze of Hale's noble utterance, the writer adds:

"It is true that the shoulders and back declare something of importance to the critic, if not to the eulogist, for in its frantic efforts to declare its innocence the statue has, by some unknown process of banting considerably reduced the depth of his chest, and so deranged his anatomical construction that the very calves of his legs have fallen quite a distance nearer his heels than the locality they usually occupy on a well proportioned figure. For an emaciated saint these little incongruities might pass unnoticed, but in an ideal statue of 'an American youth of the period,' they are decided imperfections."

It is safe to say that no statue ever set up in the United States, not even the "Custer" at West Point, or the "Morse" in Central Park, has received such complete and just condemnation.

If it is true, as some affirm, that the souls of the dead return to earth on missions of love, or to protest against continued wrongs done to their memory, who shall say that Nathan Hale was not present in the Hartford Capitol on June 14, 1887, as an invisible but saddened spirit, to witness the conclusion of a century's fruitless exertion by his native State to produce a fitting symbol of his immortality.

Many of the citizens of Hartford believed from the first that the Woods's model was superior to that of Gerhardt and that it possessed certain indications of a true art-sentiment and understanding that were wholly lacking in that of the latter. This was all the more noticeable from the fact that Woods had been deprived of all opportunities of art-study which his rival had freely enjoyed, and which were put forward by his friends as unanswerable reasons for his artistic superiority. Mr. Barnard, especially, believed that the more modest general action of the Woods model was a finer interpretation of Hale at the moment of his execution, or as an action of self-sacrifice, than that displayed by the model of his competitor. He also thought that the entire expression of the figure should centre in some single gesture, and concentrating the whole action of the figure to that point. This, he felt, was correctly indicated by the position of the right hand, as shown in this model, which also recommended itself from the fact that it was made under very disadvantageous circumstances, without the use of a living model, or the assistance of the experience of professional or friendly criticisms. As a piece of modelling, it was judged to be, by artists of long experience in the Paris art schools, a surprising piece of work, entitling its author to the fairest treatment and the most generous encouragement.

Many of the citizens also believed that Woods had been unfairly treated in the competition, and they went to see the "Hale" in the Capitol with an indignant curiosity. They were not surprised, but their indignation immediately formulated itself into a protest of a just and most praiseworthy nature. They proposed to raise five thousand dollars for the purpose of putting Woods's model into bronze, and erecting it in some public place in the city. More than half of this sum was raised at once, and the remainder is assured.

Mr. Woods is now engaged in perfecting the correct ideas foreshadowed in his model. The right hand will be placed open, instead of closed, on the left breast, and the left hand somewhat diminished in its action: all, in order to concentrate the entire action of the figure in a firm and simple expression.

While the Hartford contention was going on, interest in Hale's memory was awakened in Brooklyn, N. Y. The Franklin Library Club of that city appointed a committee to consider the question of a statue. The sons of the Revolution of New York City also became interested, and at first proposed to obtain a copy of the Hartford "Hale," but on examination they decided to make an effort to procure a better representation of the martyr-spy. Mr. Woods's model was sent to them for exhibition, and several other sculptors have consented to make designs.

SOME INCIDENTS CONNECTED WITH HALE'S LIFE.

The school-house where Hale taught school, in New London, is still standing. Two granddaughters of Alice Adams, Nathan Hale's betrothed, live in Hartford — Mrs. Dr. Hastings and her sister, Miss Elizabeth B. Sheldon. Miss Sheldon was at the unveiling of the Hale statue.

. . . . . .

The tradition is that Alice Adams married twice after Hale's death. The fact is that she was already a widow while engaged to Hale, and, though she did marry after his death, it was under peculiar circumstances, none of which are inconsistent with the belief that Hale was the only man whom she really loved. The romantic story is essentially as follows:

Nathan Hale's father married, for his second wife, the widow Abigail Adams, of Canterbury. She had two or three lovely daughters, grown up or fast growing up, and Mr. Hale had several sons of corresponding age and attractiveness. Soon after the families became one the sons began falling in love with the daughters, and one pair of them married. After this, Nathan developed a tenderness for Alice, though she was scarcely more than a child. The father Hale made up his mind that there had been enough of this intermarrying, and summarily shut down on this match, and sent Nathan off for his education for the ministry.

Then came an excellent offer for Alice's hand. Eliphalet Ripley, a man of property and character, some years her senior, asked her in marriage. She was of a yielding nature, and she gave way to the pressure brought to bear upon her, and became Mrs. Ripley at the early age of sixteen years. Within two years he died, and she was a widow at eighteen, with a comfortable little property. About this time Nathan Hale came home, and would tolerate no more opposition. He and Alice avowed the affection they had had and became engaged, but they could not be married at once. Then came the war, and Nathan went off and met the fearful fate that was their final separation.

She resolved thereupon never to marry again, but the person who had charge of her property proved dishonest and her entire possessions were lost. Meanwhile the reputation of her beauty spread far and wide. She was known as "the handsomest girl in Connecticut." William Lawrence, of Hartford, familiarly called "the marquis," son of Treasurer John Lawrence, made up his mind to win her for his wife. Her friends again urged her to marry and she again yielded. She became Mrs. Lawrence and lived in Hartford until she was eighty-eight years old. Her last words were not "Write to Nathan," but "Oh, call Nathan." In her later years she grew somewhat childish, her mind reverting to the people and scenes of her earlier days.

Mrs. Alice Adams Lawrence frequently spoke of Nathan Hale to her daughter, who in turn repeated the talk to her daughter. Miss Sheldon says she described him as six feet high, straight as an Indian and remarkably athletic and manly. T. H. Bartlett.

The Dessemination of Dry-rot. — It is said that the germs of "dry-rot," the enemy of builders, can be carried by saws and other tools which have been in contact with infected wood, and that such transmission and impregnation is often the cause of the mysteriously rapid decay of originally sound timbers. — *Exchange.*

BUILDING STRIKES OVERSHADOWED BY THE GREAT RAILROAD STRIKE.—A NOVEL WAY TO MOVE A BRIDGE.

SO entirely have we been living in the atmosphere of strikes during the past month that they seem almost to have become a natural condition of affairs, and a few more or less cause no remark. The great railroad struggle which has severely crippled some lines of business has had but little effect upon the general building trade. Naturally, isolated cases are to be found where the transportation of some particular material has caused worry and trouble on the part of the contractors and architects and hard words on the part of the owner, but no serious and widely-spread difficulty has arisen. Of all the dealers the lumbermen have complained the most bitterly, their business being so intimately connected with transportation, the stoppage of freight at once affects them, and this was especially vexatious, as at the present moment they are most anxious to put their best foot forward. Owing to the equalization of rates due to the Inter-state Commerce Law, other lumber centres are making deep inroads into Western territory that the Chicago dealers had almost commenced to regard as their own private preserves. As a result they have stormed and have formally met and resolved several resolves, which fill half a column in the daily papers, but all the same their relief was very slow.

In the midst of all this clashing of loud cymbals, or something else, by the railroads and their employés, the strikes of the building trades have been almost unable to obtain any public recognition and in sheer disgust have nearly been obliged to hide their diminished heads. The painters tried to go out with a great flourish of trumpets, but the aforesaid cymbals so completely drowned their little blare that a dozen or so lines in the daily press was all that they could obtain. Such poor recognition and lack of enthusiasm on the part of the general public seems to nearly have caused a collapse at once. However, they have held out bravely for less work and more pay and have succeeded in causing considerable trouble to their employers. There are, however, so many non-union painters and business is so comparatively light for this season of the year, that it is now more than evident that they will shortly be obliged to work a little more and be paid something like other mortals in proportion to the value of the work they do. One branch of the carpenter's fraternity is also trying to make it lively for every one concerned, but in this case they are antagonized by the Knights of Labor division of that trade. The Knights were so modest this year as only to ask for about one-half of the earth, and this demand having been conceded, they gaze in virtuous indignation on the brotherhood which demands three-quarters of the planet at one fell swoop. Not to be behind the times, the hod-carrier has threatened to strike; for what is not positively and publicly asserted, but it is also believed to be for less work and more pay. The plasterers feel that they are aggrieved and some of them have threatened to strike, but publicity in the daily press not being given to these things as much as their promoters would like, they have all proved decidedly abortive. Probably no really serious interference with the building business will take place this spring. All real grievances in most of the trades can be readily arbitrated, and the sober-minded portion of the workingmen are not anxious to lay off for a month or two, especially when many persons consider the outlook for building for the coming season to be only fair. In fact, the immediate future seems to show so comparatively little extremely large building that people are apt to get the idea that things will be very dull. This, however, is not really true, for the number of smaller though good buildings promises to be very large, and undoubtedly about the same number of miles of cheap houses will be built as in the past few years. As for the extremely large and heavy constructions, the demand caused by the removal of the Board of Trade has no wbeen about supplied, and hereafter such mammoth buildings will come only occasionally to the architects.

A rather novel bridge-moving (at least, novel for Chicago) has taken place here during the last month. One of the swinging-draws connecting the South with the North Side was floated bodily down the river, a distance of about one-eighth of a mile, and placed on a new foundation. Under each end of the bridge to be moved large scows were partially submerged and scaffolding built upon them until the underside of the roadway was reached. The water was then pumped from the boats and as a result the bridge was raised off the pier upon which it swung. All that remained was to tow the scows carrying the scaffold and bridge down the stream until the construction was over the new central pier prepared for it. The water was once more let in and the whole thing easily sank down into position upon the new foundation. As usual, many people were greatly exercised for fear the whole affair would topple over into the river, but the transit was safely accomplished, notwithstanding the float had but a few inches to spare in passing through Clark-Street bridge, and now Wells-Street bridge is calmly resting upon the central pier at Dearborn Street. Moreover, there seems to be but little doubt but that it will tranquilly repose there for some time to come, since the city fathers, owing to some little oversight, failed to appropriate any money to build the proper approaches on each side of the river. However, this small matter will probably be brought to their notice in the course of the next twelve months, so that some time in the course of the year after, if they cannot force other parties to build them, the necessary money may be appropriated.

In the meantime, the North-Siders have one less bridge for their use, but the knowledge that the old bridge was safely moved and not toppled over into the river, coupled with the fact that they can soothe their lacerated feelings by gazing at that very draw now swinging on the new pier, may serve to keep them in good spirits until at least a new bridge is completed at the place from which the one in question was moved.

In spite of this, the long-suffering inhabitants of the North Side are just now in high feather, for they think they begin to see the commencement of rapid transit and the consequent development of the distant parts of that quarter. At last the new street cable-railway has started, and by making use of the La Salle-Street tunnel under the river, many of the vexatious delays caused by open bridges are expected to be avoided and much more rapid time made to the northern suburbs.

ILLUSTRATIONS

[Contributors are requested to send with their drawings full and adequate descriptions of the buildings, including a statement of cost.]

DOORWAY OF HOUSE AT CORNER OF GLOUCESTER STREET AND COMMONWEALTH AVE., BOSTON, MASS. MESSRS. PEABODY & STEARNS, ARCHITECTS, BOSTON, MASS.

[Helio-Chrome, issued only with the Imperial Edition.]

GOTHIC TOWERS AND SPIRES. PLATES 10, 11 AND 12.—ST. PATRICK'S, PARTINGTON; SS. CUTHBERT AND MARY, CHESTER LE STREET, DURHAM; ST. MARY THE VIRGIN, HOUGHTON; ST. GREGORY'S, WELFORD; ST. GEORGE'S, METHWOLD; ST. MARGARET'S, CRICK; ST. MARY'S, MORSHAM; ST. WILFRED'S, BRAYTON; ST. MARY MAGDALENE, OXFORD, ENGLAND.

[Issued only with the Imperial Edition.]

PENNSYLVANIA COLLEGE, GETTYSBURG, PA. MR. J. A. DEMPWOLF, ARCHITECT, YORK, PA.

THE materials employed in this building will be common brick and Hummelstown brownstone, with local granite base all jointed in brown mortar. The interior finish will be in oak and southern pine. There will also be an arcaded stair-hall of three stories in moulded and plain buff brick, brownstone and Woodstock granite. In addition to the main staircase additional exits will be provided at each end of the building by means of iron stairs enclosed in brickwork with fireproof doors. The size over all is about 84′ x 174′, and the total cost including heating will amount to $100,000.

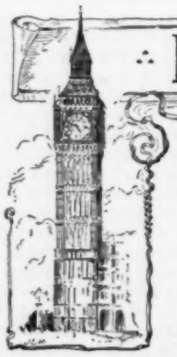
"PRO PATRIA." A GROUP BY LEFEUVRE.

As having an antithetical interest, this group is published at the same time with the sketch of the Nathan Hale statue, which will be found elsewhere in this issue.

FAST-DAY SKETCHES AT HINGHAM, MASS., BY MR. W. W. BOSWORTH, BOSTON, MASS.

THE I. D. FARNSWORTH SCHOOL OF ART, WELLESLEY COLLEGE, WELLESLEY, MASS. MESSRS. ROTCH & TILDEN, ARCHITECTS, BOSTON, MASS.

LONDON



THE SECOND READING OF THE REGISTRATION BILL.—APPROACHING DISSOLUTION OF THE METROPOLITAN BOARD OF WORKS.—SUCCESS OF THE EXAMINATIONS.—EXHIBITION OF SKETCHES OF OXFORD.

LONDON, March 31, 1888.

THE Second Reading of the "Architects', Engineers' and Surveyors' Registration Act" has been fixed for Wednesday, April 11th, and both sides are busy preparing for the conflict. A special business meeting of the Royal Institute of British Architects

was held at their rooms at Conduit Street, last Thursday week, to enable the Institute as a corporate body to petition against the bill, and was very well attended. Mr. A. W. Blomfield, M. A., the recently elected A. R. A., was in the chair, and it was soon apparent that he would be no fancy chairman. What he said was law. "The question before us, in effect," laid down by the Chairman, "is whether we shall or shall not petition against this bill, and nothing else is in order, nor shall I permit it to be said." Neither did he. Thus handicapped, the expected discussion upon the abstract question of registration could not take place, and the interest was confined to the voting. There were seventy-five Fellows present, and all but three voted in favor of the proposed petition. These three were Mr. Blomfield, the Chairman, Mr. White, the Secretary, both of whom were prevented by their official positions from voting, and Mr. Gough, the registrationist leader. Comment is needless. It must, however, be remembered that under the existing régime, Associates are not permitted to vote at these meetings, and the Fellows consist almost entirely of men fairly advanced in years, who, being quite inured to the present state of affairs, naturally look with suspicion upon any attempt to disturb it.

The opposition organized by the three Institutes appears to be of a very complete character, and it seems quite impossible that a bill of the character of that now before Parliament can pass in the face of such opposition. I hear from a trustworthy source that the cause of the Royal Institute of British Architects will be advocated by a very eminent conservative M. P., Mr. Chaplin, and that of the Surveyors will be represented by their President, Mr. Beadel, M. P. The Engineers are treating the matter in a very contemptuous manner, as if it were hardly worth their serious attention.

On the other hand there has been quite a flood of petitions in favor of the bill presented to the House of Commons from all parts of the British Isles, and several provincial societies have subscribed to the fund for producing the necessary expenses, incident on its passage through the House, including such admittedly orthodox societies as the Sheffield Society of Architects, and the Leeds and Yorkshire Architectural Society, although the president of the former has publicly expressed his disapproval of the course of action taken by his society. The press, too, is carrying on the war of words with unabated vigor, and, indeed, it is a matter of regret that the leading journals on both sides do not modify the acrid tone of debate that they have seen fit to adopt.

These few words will serve to show the intense interest which this matter is exciting on this side of the Atlantic just now, and it will be somewhat of a relief to many steady-going and quiet individuals when the fate of the bill is decided and the political thermometer of English architecture returns to its normal condition.[1]

The Royal Commission upon the Metropolitan Board of Works has now been appointed and consists of only three members — Lord Herschell, the Lord Chancellor of Mr. Gladstone's late Administration, Mr. Bosanquet, Q. C., and Mr. Grenfell, a Director of the Bank of England; so it seems that the Government by appointing an eminent lawyer and financier intends to make this inquiry a strictly business one. It is to be hoped that the rumors one is continually hearing in the city are *only* rumors, otherwise the result will be very uncomfortable for a certain architect, an Alderman of the City of London, whose name is persistently coupled with these rumors. No doubt you have heard that apart from these recent scandals, the Metropolitan Board of Works is doomed, for the new Local Government Bill, lately introduced by the Government, contains a clause providing that London shall be governed by a "County Board," which is to supersede the Metropolitan Board of Works in the administration of metropolitan affairs. The universal satisfaction with which this provision has been received can hardly be called complimentary to the present members.

The papers read before the learned societies of late are not of surpassing interest. At the Royal Institute of British Architects the other night, some interesting memoirs of the late Mr. Beresford Hope were read, and Mr. Weathered contributed an interesting account of "A Fortnight in Switzerland with M. Viollet-le-Duc." At the Architectural Association, Mr. F. M. Simpson has read a paper upon the pregnant subject of "Old Housework," which, though treated very well, might have been made more of; and Professor Unwin, of the City and Guilds of London Technical Institute, gave us quite a college lecture upon Hydraulics, which he illustrated by some very beautiful experiments.

Two examinations in architecture have recently been held by the Royal Institute of British Architects at Manchester and at London, and have been eminently successful, nearly fifty candidates in all having passed, including several from the colonies and India. This examination seems rapidly taking its proper position as the recognized final examination in our profession, after passing which a man may fairly claim to call himself an architect. It hardly seems yet, however, to have quite found its level, and a leading article appears this month in the official organ of the Architectural Association strongly advocating its conversion into an examination for a professional degree. Thus you see, events seem steadily tending in the direction of a collegiate course for architects, and there is very little doubt but that it will eventually come to this.

I regret extremely to have to state that Professor Kerr, the popular professor of architecture at King's College, perhaps the most eloquent man in the architectural profession, is suffering from cataract, and will shortly, I hear, have to undergo an operation. I am sure the sympathies of American architects are with him in his trouble.

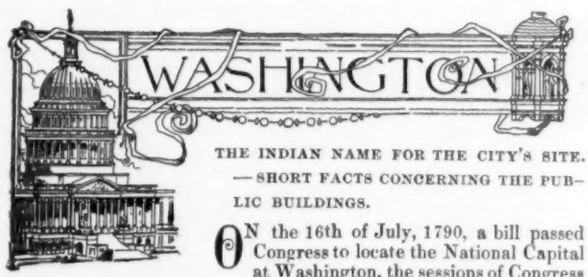
The visits of the Architectural Association this year, though not to buildings of any paramount importance, have yet been of considerable interest. They have included the new hall of the Cutlers' Company which was recently dispossessed of its old hall by the completion of the Inner Circle Railway. The architect has evidently put a lot of feeling into the work, and though some of the detail is bold — almost coarse — yet the internal effect of some of the rooms is good. The walls are treated with oak (merely washed, by the way, with ammonia and not smoked) and Japanese leather papers. A curious effect has been obtained in the large hall by the employment of double principals and in lieu of the ordinary arrangement. The Great Northern Central Hospital, also visited, is only partly finished, and I hear the architects, Messrs. Young & Hall, are going to try the, I believe, novel experiment in England of a circular-ward. As Mr. Saxon Snell and other great hospital authorities have declared against this circular form of hospital ward, it will be curious to see the result of Messrs. Young & Hall's experiment. A West end club-house, some large residental flats, and a new church near St. Mary Abbot's, Kensington, have also been visited by the Architectural Association.

In the art-world, the split at the Grosvenor seems still to attract attention. A short time ago a complimentary banquet was given to Sir Coutts Lindsay by the Committee of the Grosvenor Gallery. Amongst those assembled were Mr. F. Goodall, R. A., Mr. Frank Hall, R. A., Mr. G. H. Boughton, R. A., Mr. E. J. Gregory, A. R. A., Mr. P. R. Morris, A. R. A., Mr. Henry Moore, A. R. A., Mr. J. W. Waterhouse, A. R. A., and many other eminent artists, in addition to several peers and patrons of art. Thus it seems that the ostentatious departure of Messrs. Hallé and Comyns Carr and their friends has not bereft Sir Coutts of all his supporters. Talking of this, a capital "Queer Story" appeared in *Truth*, evidently upon this subject, in which Mr. Grenville Murray's covert satire was more than usually brilliant. There seems, however, to be a considerable amount of energy on the part of these schismatics. Their new gallery is situated in the centre of Regent Street, and the open door nightly shows forth to the world a busily engaged gang of workmen preparing the gallery for the forthcoming exhibition which is going to astonish the world. Whether it will or not, *nous verrons*.

I was present at the private view of a charming collection of pencil and water-color sketches of Oxford at the Fine Art Society's Galleries. They are the productions of Mr. J. Fulleylove, R. I., and are exceedingly interesting. I suppose there is no city in the world so full of interest to the architect as Oxford, and Mr. Fulleylove has worthily represented its beauties. Of course, we miss that appreciation of detail that we are accustomed to look for in our professional sketches; yet, I doubt whether it is not rather a relief at times to turn from our somewhat formal productions to such delightful sketches as Mr. Fulleylove's. All parts of Oxford are represented, and the quaint nooks and corners to be found in the by-ways have not been neglected. Magdalen — queenly Magdalen — occupies deservedly the first place, for no less than eleven out of the eighty-eight drawings on view are representations of its beauties. Christ Church has also received its full share of attention, as has also Merton. There are three views of the "High," with the spires of All Saints' and St. Mary's. The beautiful dome of the Radcliffe Library forms the subject of more than one sketch, and the charming view of Oxford, as seen from Headington Hill, has been portrayed in a masterly manner, and though Mr. Fulleylove has mainly confined himself to architecture, yet his artist propensities creep out in various charming little sketches on the river and in the gardens of New and Magdalen. Altogether the exhibition deservedly earns the appellation of unique, for not since Turner's time has so complete a collection of drawings of Oxford been exhibited.

CHIEL.

[1] Since this matter was put in type we have received a cable message that the bill was discussed on April 17 and withdrawn. — EDS.



THE INDIAN NAME FOR THE CITY'S SITE. — SHORT FACTS CONCERNING THE PUBLIC BUILDINGS.

ON the 16th of July, 1790, a bill passed Congress to locate the National Capital at Washington, the sessions of Congress to be held in Philadelphia until 1800, when, as Mr. Wolcott expressed it, they "were to go to the Indian place with the long name [Connogocheague]." Many doggerel verses were written in opposition to the present location. One from Philadelphia says: "Since you writ us Congress and court have determined to quit us.

"In fact, he would rather saw timber and dig
Than see them removing to Connogocheague,

. . . . . .

Where the houses and kitchens are yet be framed,
The trees to be felled and the streets to be named."

The ground was originally owned by some seven or eight families, as the Burnses, the Youngs, the Carrolls, the Davidsons, the Blodgetts, the Peterses and Walters. The original proprietors conveyed the whole to the United States on consideration that when it was surveyed and laid off the original proprietors should retain each alternate lot; such land as was retained by the Government, exclusive of streets and alleys, was to be paid for at the rate of $121.50 per acre. The first Commissioners were Johnson, Stuart and Carroll. It was first called the Federal City. In a letter of the commissioners of the date September 9, 1791, to Major L'Enfant, who was addressed under the title of "the architect," they say that they had agreed to call the Federal city "the City of Washington" and the Federal district the "Territory of Columbia."

Dr. William Thornton, who was the successful competitor for the United States Capitol, was afterwards appointed in 1794 one of the commissioners to survey and lay out the city.

Major L'Enfant has the credit of planning the city, and from 1800 to 1860 his plan was ridiculed for its grandeur, Dickens, Thackeray and other authors taking occasion to poke fun at the "city of magnificent distances" without pavements or houses. There are many curious letters on record from politicians, foreign visitors and their wives in relation to the inconveniences which they had to undergo in their lodgings, conveyance and walking, which I would be tempted to quote if space allowed it. But now all, both citizens and foreigners, give the engineer credit for proper foresight in laying out the Federal city on its present plan.

As late as 1861–62, it is said that teams would become stalled in the mud on Pennsylvania Avenue. From 1871 to 1875, hundreds of miles of wooden pavements were laid under "Boss" Shepherd, and answered their purpose for a year or two, when they began to decay. They have all been taken up and the streets are now paved with concrete and asphalt for light vehicles and granite Belgian blocks for heavy traffic, so that Washington can boast now of having the best paved streets in the world.

For the first forty years the population increased at the rate of only five hundred and fifty per year, and in 1860 the population was about sixty thousand. The last directory shows a population of two hundred and fifty thousand. For years the Government buildings were the only architectural attraction in the city. The corner-stone of the Capitol was laid September 18, 1793, by George Washington, with Masonic ceremonials by the Alexandria Washington Lodge of which he was Worshipful Master. In 1800, the Capitol and President's house were partially completed. Mrs. John Adams says, in reference to the White House: "The house is made habitable, but there is not a single apartment finished, and all within side, except the plastering, has been done since B. came. We have not the least fence, yard, or convenience without, and the great unfurnished audience-room [East Room] I make a drying-room of to hang up the clothes in." The Patent-Office, Treasury and Post-Office and the wings and dome of the Capitol were completed just before or during the war.

Mr. Thomas U. Walter's, the late lamented president of the American Institute of Architects, connection with the extension or completion of these buildings is interesting, he having a claim pending for professional services rendered on them. In 1851 he was commissioned by Fillmore to take charge of the Capitol extension (the wings), the amount of the work being fixed by Act of Congress, and the salary for this special work being fixed in the same act. In 1851 he was commissioned by Secretary A. H. H. Stuart to take charge of the wings of the Patent-Office. In 1852 he took charge of repairs and additions to the Congressional Library. In 1855 his plan for the extension of the Treasury and Post-Office and dome of the Capitol, and the superintendence of the same were confided to him by Act of Congress. Mr. Walter laid a claim for these services. According to affidavits, he not only expected additional pay, but the officials expected him to receive such remuneration. Equitably, of course, this claim should be adjusted and paid, as the salary was a contract morally, and, I should think, legally, taking the letters of Mr. Stuart and President Fillmore into consideration. Mr. Walter's work is by far the best from an architectural standpoint of the government buildings erected in this city, all details and groupings being strictly Classical. There is a quietude, massiveness and dignity in their design which is sadly lacking in some of the more modern Government buildings.

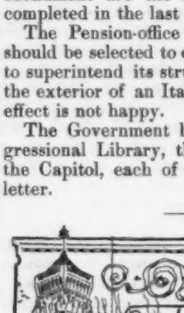
The National Museum, completed two or three years ago, is unfortunate in the design — strikingly so when viewed in connection with the Smithsonian, its next door neighbor, but excellently adapted inside for its purpose, being as far superior to the Smithsonian in this respect as the Smithsonian is superior to it in design. The Bureau of Engraving and Printing is on the other hand an example of a well-designed brick building.

The War, State and Navy Departments were completed in January last, having been in process of erection some ten or twelve years. It is a large and costly building, a poor treatment of French Renaissance. When viewed from the avenue (the principal point of view), it is down in a hollow and looks low. It is one mass of small windows and small porticos, each designed apparently to accentuate its smallness, making the building appear a pile of small details conspicuously obtruded. In this way a quiet, massive and dignified effect, so important for a large Government building, is lost, and yet it cost about fifteen million dollars!

The Pension-Office, the Medical-Museum and the Washington Monument are the other Government buildings which have been completed in the last year.

The Pension-office shows that an architect, not an engineer, should be selected to design a building, even if engineers are selected to superintend its structure. The building is an effort to introduce the exterior of an Italian palace into a Government building. The effect is not happy.

The Government buildings in process of erection are the Congressional Library, the Soldier's Home, remodelling the terrace of the Capitol, each of which I will treat separately in some future letter.



BOSTON.

THE PICTURESQUE AND THE MONUMENTAL QUALITY IN URBAN ARCHITECTURE. — THE LINCOLN AND OTHER NEW BUILDINGS.

THERE are in architecture two equally prevalent qualities that characterize work — the picturesque quality and the monumental quality. They are more opposed to each other than is at first apparent, and symbolize not only the expression of different types of mind and kinds of education, but they vary with physical surroundings, and especially with social and public progress. One pertains to the romantic attitude of mind, the other, one might almost say, to the forensic. Monumental work certainly has forensic qualities, inasmuch as there is a desire to impress by dignity, by grandeur, in fact by eloquence as compared with the more emotionnl contrasts of picturesque work or language. The choice of either of these qualities as the dominant note of a design rests solely with the architect. The exact equilibrium of both in the same building is well-nigh impossible, for while, on the one hand, picturesqueness often courts monumental detail as a restraining factor, a monumental design destroys its own existence the moment it tolerates a suggestion of picturesqueness.

The picturesque design, as its name implies, depends for its attractiveness on accidentals — studied and elaborated and artificial accidentals, perhaps, but none the less accidentals — in so far as light and shade and perspective groupings are concerned. It relies upon the variety and vivacity of rapidly changing effects from different points of view; on sharp contrasts, and the piquancy of small detached masses; on quick transitions of form, color and material. It seldom inspires homage, but often compels applause. It is not a thing before which to be silent, but rather excites the "ohs!!" and "ahs!!" which denote a pleasing but not too subtile titillation of the senses. On the other hand, monumental work has, above everything, two noble virtues, simplicity of form and arrangement and majesty of scale; without these it does not deserve its name, it becomes a formal, petty thing, devoid of merit.

Neither of these great virtues can be expressed on paper, except to the eye that has been trained to feel scale in drawings, and can mentally evolve the meaning of the bald data of elevations.

The impressiveness of size as compared with the size of man cannot be compressed within a sheet of Whatman. Nor can the noble simplicity of a single great form be expressed by the hair lines of a writing pen and the graded shadows of windows. The means of expression are unworthy of the thing expressed.

But with picturesqueness it is different. Sketching enhances its most attractive side; the accidentals of the pen-and-brush-work are only added to the accidentals of the design, and as scale is not an element of the work to any great degree, all its other qualities can be expressed and flattered to any size whatever. It is this specious lying, charlatan quality of the sketches of picturesque work that catches and holds the attention of the layman, which pleases him and which is the reason for his disappointment when the actual work is completed. Is there a latent suggestion in this? Great robes belong not to the little, nor do small coats fit large men. When such qualities as impressiveness and dignity exist no work can be too great to require them, while staccato contrasts belong by mere necessity to small forms and subjects. Therefore the greater the work in purpose and in size the more it needs the great qualities of monumental work, and the smaller the work in purpose, in size, in material and in physical surroundings, the more it will need the vivaciousness of the picturesque to make it capable of attracting consideration. And to carry the thought still farther, and really to the point of the whole matter, going beyond the actual building to the conditions that have produced it, it can safely be said that the greater the mere numerical importance of the city that erects buildings, the greater will be the tendency towards monumental work, and how much more so if associated with mere numbers is a corresponding advance of breadth of view, of largeness of idea, and of simplicity and nobility of life. So long as a city is provincial its character will be picturesque rather than impressive; but the varied charm once lost by growth the monumental quality is the only thing that will bring repose.

Glance at the cities of Europe: the picturesque cities with picturesque buildings are the small cities — Chester, Shrewsbury,

York, Rouen, Tours, Troyes, Lubeck, Nuremberg, Heidelberg, Regensburg, Verona, Lucca, Siena, Perugia, Burgos, Avila, Seville. The cities with long monumental façades with simple sky-lines, with great squares and long avenues and vistas, with fountains and statues, are the great cities: London, Paris, Berlin, Dresden, Munich, Vienna, Rome, Madrid. It is not a fashion for Classicism. It is because large requirements cannot be made to conform to the eccentricities of the romantic treatment, and because the lights and shades of Nature in sunlight and shade need no further frittering with all sorts of little shadows. In the past our cities have been small, and naturally we have been through the picturesque stage, only we are still in our short clothes, though we are full-grown boys, simply because we have grown too rapidly and there were few good tailors. We have that excuse no longer. Boston is growing in all directions. With a little thought now there would be good prospect of its becoming a city with buildings and spaces worthy of it. The Charles River embankment is one step in the right direction. The Public Library is to be another, and a very great one. Commonwealth Avenue, as far as the street is concerned, though not in the houses upon it, is still another, and within the past year several simple buildings have been going up. Of these, the most disappointing, with the possibilities at hand, is the long façade on Lincoln Street, near Essex. The scheme is simple and good. A store story, a heavy string-course, moulded and projecting too much, the remaining stories above within a high great arcade, with pilaster treatment between the arches; a rather meagre cornice, and above it, in the centre of the building only, a top story surmounted by a balustraded parapet. The pilasters, cornice and strings are of cut-stone; everything else is rough-face. The contrast between the cut-stone pilasters and the rock-face wall, against which they stand, is most disagreeable. Rock-face work will not allow cut-work to be used near it except in jambs, soffits and strings without the cut work losing largely by the contrast. The richness of light and shade in rock-face walls kills the value of smooth surfaces, and they should only be used above it and not in the midst of it. Mouldings with rich shadows, fully detached columns and forms with much light and shade can alone hold their place among rock-face work. The fluting of the pilasters is not good. Fluting in which the arris is more than, at greatest, one-eighth of the width of the flute is always unsatisfactory. Consoles set up on end and flanking the base of the chimney are very feeble motives. The reveals are inadequate for the size of the arcade. The chance was an exceptional one. The result is disappointing.

The Boylston Building, on the contrary, improves. It is dignified, and has the impressiveness of size and simplicity. The Ghibbelline swallow-tailed parapets seem unnecessary, and a fuller upper cornice would have made a better termination to the building, but, with this exception, and that of the lettering, the building is most satisfactory.

On Washington Street, near the Boston Theatre, there is an example of the complete subversion to the desire for novelty that so often destroys our best work. It is a store front of brick and stone, is simple and good in detail; but the windows, which are in three pairs across the front, crepitate outwards into two-sided flat bays the full height of the building. These bays cannot project more than eighteen inches, if they do that. The additional light and view gained must be very slight, and not worth the trouble, and, to make it worse, there are stone quoins at the outer angle, to obviate cutting the brick, perhaps, and this gives a heavy stone mass in the centre of the bays, not flanking them, from top to bottom. The whole thing is so manifestly the momentary affectation that has crept into work that is otherwise good that one wishes for some force that would press these windows that seem to buckle out from the wall back to a flat surface.

THE ART OF HOUSE-BUILDING.[1]—II.

Capital from the Fondaco dei Turchi, Venice. after L'ART.

IT is not my fault that at the commencement of this study it is said that the Gallic dwelling which is treated in the book of M. Boussard could only be in fact the Roman house. In truth, when the author wishes to trace the ideal type it is to Pompeii that he goes in search of it. This gives him the chance of taking for his guide M. de Lagrèze, and who, amongst French writers who have studied that ancient Roman city, is the one who has done so most competently and with the best show of reason. An excursion through the streets of this great city, buried beneath the cinders, which, like the phœnix of the fable, has been born again, does not lack charm or interest. One would think it a sleeping city, and, under the desolate aspect of its ruins, one would feel that he might soon be present at its arousing. A cataclysm surprised it in full life. The track of the last chariot which rattled over the pavements is still visible; fountains and triumphal arches are still standing in part. In one bakery was found bread bearing the date of the 23d of November of the year 79. Farther on, we can examine a workshop where the tools still remain intact. The *ergastulum* (the private prison) offers us the distant image of the captive slave. The luxury of the apartment, the accessories of the dressing-room, the couches of the triclinium, show us that in certain ways the epicurians who dwelt upon the Neapolitan shores knew more than we do of the elegancies of coquettishness. After a little search we might discover the remains of a repast interrupted by the catastrophe, and of which a learned archæologist would not have much difficulty in reproducing the *menu*. The walls of the houses and public edifices, tombstones and the "album of the streets" are scribbled over with verses from Ovid and Virgil. To these Classic quotations are added anonymous epigrams. Somebody writes: "I loved a blonde and she has disgusted me with all blondes." Venus Physica replies: "Thou detestest the blonde, but in spite of thyself she shall return to thee. It is I who assures thee of this." This gives us reason for believing that Venus Physica was not a blonde.

We could not finish if we were willing, in company with M. Lagrèze, to pass in review all the collections of the houses, all the utensils of housekeeping and the toilet, whose manufacture reveals an exquisite taste; the candelabra, the weights of the balance, everything, is moulded, carved, sculptured and incrusted. Surprises of another kind await us if we are willing to delve in other corners of this necropolis, and many inventions of which we claim the merit would turn out to be very familiar to the ancients. Has there not been found, for example, at Tarquinia in the Etruscan cemetery a skull furnished with false teeth, filled with gold fillings and manufactured with such perfection that modern science could not surpass it?

Now for a description of the Gallic house such as M. Boussard imagines it. The entrance-door is in the first place protected by a portico, under which the visitor finds at need a shelter while he rings the bell. I borrow, almost word for word, his description, in order that I may not take the spirit out of his ideal. In the first place, we enter a long, narrow room, upon one side of which opens the lodge of the porter and on the other the cloak-room, where, if we wish, we may leave our hats and coats and enter the *salon*. M. Boussard even says that we may leave there our umbrellas, but it is not very certain that the Romans or the Gauls had knowledge of this article, which to me seems rather a product of the civilization of our times.

Next, the first *salon*, which is lighted by a fine glass window, which fills the middle of the ceiling and which can be opened when the weather is fair for the admission of air and sunshine. The decoration, composed of beautiful and bright-colored portières and woodwork finely carved, is made complete by a fountain whose crystalline jets fall back into a marble basin. The tones of the mural paintings, the tile-work, the crystal mirrors framed in polished metal, as well as bronzes and wrought seats, stand out with much life against the green of the plants and velvety foliage and the many-colored flowers, which add to the scene a restful freshness. Here it is that the master of the house will come to meet us.

Learning that it is our desire to examine the arrangement of his house, he does the honors of it with charming cordiality, knowing that he has to deal with artists. He first shows at the right and left guest-chambers, for which the atrium serves as the common *salon*. Then he lifts the portière in front which closes the entrance into the museum where are preserved portraits of his ancestors, their arms and busts in bronze, fine pieces of jewelry, everything, in short, which goes to form the collection of those objects which have formed part of the lives of the departed and speak as much to the heart as to the eye. At each extremity the house-gods, protectors of the house, rear themselves on their pedestals and receive the homage of the passing visitor.

Return now to the atrium and follow along to the right a long corridor which leads us to the kitchen and its dependencies, where the elegance of the pots and pans, the studied forms of the cooking utensils, are really surprising; and symmetrically on the left are the stables and coach-houses, where horses and carriages are not less luxuriously and sumptuously installed. Special doors for both of these departments open on a passage at the right and left of the principal doorway. Shops are arranged on either side for letting or for the sale of the products of the owner's farm.

Returning a second time to the atrium, which is, let us not forget, the centre of the public life of the house, we penetrate to the private portion of the house through two passages situated on either side of the museum and which give access to it under a gallery or rectangular peristyle ornamented with columns and closed by glass windows, and in the centre of which is a charming garden decorated with fountains, statues and exedras, forming the axis about which are arranged the reception-rooms, the library and work-room, several dining-rooms, a little gymnasium, a hall for fencing, and finally, a complete bath, arranged with its three regulation-rooms, including the steaming-bath and the douche. Finally, on the right, we arrive at the end where a last door opens under a portico and gives us entrance to the gynecæum. Here transpires the private life of the household. In these dwelling-rooms are other rooms arranged about a small atrium highly decorated, which has a private entrance used

[1] "*L' Art de batir sa Maison*" Librairie des Imprimeries réunies, Paris. Continued from No. 642, page 167.

only by the householder and which puts him in communication with the street in the rear.

This house differs essentially from the modern house, whose history M. Boussard draws for us. On the morrow of the invasion of the Gauls the new society separated itself, as it always does, into three classes — priests, the wealthy leaders and the working people. Each of these three classes built for itself dwellings of different type. The priests built their convents, the lords their castles, and the people their huts. This treble grouping still exists in our cities. In the country the vicissitudes of construction were the same. The rudimentary type of rural dwelling-house remains in the charcoal-burner's hut, with its clumsy carpentry and its masonry of beaten earth, pierced at the summit by a hole through which the smoke escapes. In the hamlet we encounter the little square thatch-roofed house with its gables, which contains a single room and connects through a low doorway with a neighboring stable. Apart from the difference of proportion the analogy of construction is perfect between this little house and the hut of the charcoal-burner. When the peasant grows richer he enlarges this dwelling, but without altering its interior arrangement. He enlarges it and raises it so as to form that dwelling which we all know, and which may be described as follows: A square house whose principal door opens on an entry which serves two rooms on the right and left, with a staircase at the back leading to the first story. Rarely has the modern French architect thought to repudiate this architectural theme; and the prettiest little villages with which the French country is sown have for their starting-points the hut of the charcoal-burner, that is to say, the hut which the uncivilized man has built. It is time that a revolution should take place, and that our civic life should return to the traditions of antiquity, applying to them the resources and discoveries of modern science.

The plan of this model house, classic in its amplitude and grace of proportions, the ordonnace of its rooms and the distribution of ornamental parts, modernized in revenge by wise adaptation of the new conquests of arts and science — this plan, I say, is very sagely developed by the author. In front is an enclosed paved court of wrought-stone, and of which two raised walks complete the decoration. One can in this way pass from the house without stepping immediately onto bare ground. Children can take here their recreation when rainy weather banishes them from the garden. Finally, it opens onto the porch, under which opens the house-door. It is useless here to dilate on the usefulness of the porch. The door allows us to penetrate into a little vestibule, beyond which is found a closed court, ornamented with porticos, rare plants, mosaics, hangings, marbles and paintings. It is covered in the centre by a movable sash, and the floor beneath it is slightly hollowed so as to receive the few drops of rain that a sudden storm might blow in before the sash could be closed. A little vase of marble ornaments the centre of the basin, and the tinkling of its jet of water enlivens and refreshes the place. In front three large doorways conduct the visitor to the living-room. Large bays arranged on the circular plan give to this room the aspect of a covered exedra, whence the view stretches out over the landscape, the house being placed on a hillside. This living-room, adjoining the study of the head of the house, serves as the headquarters of the mistress, for from this central point oversight is more easy and more immediate. From this room can be entered the dining-room, which is separated from the kitchen by pantries with double doors, which render the domestic service independent of the central court. The linen-closet and the chambers of the servants are annexed to the kitchen, which also communicates directly with the cellar. Returning to the *salon* by the central court, we can, through the left-hand door, enter the sleeping-room of the master. This chamber, the *salon* and the dining-room, are the principal rooms of the house, and consequently have an outlook upon the fields, the landscape and the distant views. In a room next to the sleeping-rooms are installed the hydropathic arrangements, the bath-rooms, the douche, the hip-baths and the vapor-bath. Finally, under the portico of the court open two more sleeping chambers and wardrobes, with double doors opening on the vestibule, and the water-closets. Thus disposed and arranged, says the author, a dwelling-house contains a sufficient number of rooms for a family of ordinary size. The furnishing can be very economical, everything allowing the court and its porticos to be in some way turned into a sort of little museum, where the family souvenirs can find a resting-place, an annex, as it were, to the *salon*, and forming for it a prolongation for the fête days. The *salon* can equally be transformed on occasion into a ball-room or a dining-room, if one has had the forethought to regulate the height of the fountain so as to have it serve as a central support for the dining-table.

The orientation of the house is a matter of prime importance. The neighborhood of damp-grounds which at night, especially in the autumn, are covered with mists, is very dangerous, for it predisposes to rheumatism, catarrhal affections and consumption. Elevated sites are preferable, summits being the most healthful because of the continual change of air, but the violence of the winds usually makes them very uncomfortable places. One must rather seek a site half way up the hill, in a position open to the currents of air. It is generally preferable that the house should face either east or west; if to the north, the air is too dry; if to the south, the dampness due to evaporation is not without danger. H. Mereu.

[To be continued.]

JAPANESE PICTURES.

Roman Eagle—Vatican Museum—after Raquenet.

ALTHOUGH it is difficult to endorse the report of the Japanese Commission upon the future of art, yet the collection at the British Museum proves once more that Japan possesses work, which from its own particular standpoint, equals any school of European painting. The art of Japan seems to have been the outcome of that of China; and the oldest written documents of the Japanese, those of the eighth and ninth centuries, make no allusion to any style of pictorial art previous to the fifth century. The first painter mentioned was a Chinese, one Shinki, who is said to have come to Japan during the reign of the Emperor Yūriaku (457–479). The fifth in succession from Shinki, or Nauriū as he is sometimes called, obtained the title of "painter of Japan" from the Mikado; and the Empress Shōtoku conferred the name of Oōka-no-Imiki upon him in 1770. Kauaoka became famous about 850–859, and although none of his works remain, the references to them are so precise, that there is no reason to doubt his great talent. The collection opens with specimens of what is called the Renaissance of the fifteenth century; but if the visitor expects to find a decided demarcation between early and late work, between primitive and revival schools, as in Italian art, he will be grievously disappointed. All Japanese pictures are essentially decorative; there is not the faintest attempt to depict one object behind another, light and shade are unknown qualities, and linear perspective is, of course, completely ignored. This is very strange, for one cannot conceive such close observers as the Chinese and Japanese being unable to see, for instance, that a road appears to diminish as it recedes from the eye. Why is this? That intricate laws of perspective want study, that even the vanishing lines of two sides of a house may not be perceptible to the ignorant may be possible, but the merest child sees that a road is narrower at the end than at the beginning where he stands. Then, again, although the anatomy of each bird, beast and fish is as closely observed as to its general characteristics, distance is only indicated by diminishing the objects depicted; and the armor and each detail of the costumes of the soldiers a mile off, are painted with as much minuteness as that on the men who are in the immediate foreground. But for dexterity of touch, for brilliant coloring, for real impressionism of the truest kind, what artists can equal the Japanese? A great man, according to a native authority, was Sesshiū, who died in 1507. "He did not follow in the footsteps of the ancients, but developed a style peculiar to himself. His power was greatest in landscape, after which he excelled most in figures, then in flowers and birds; and he was also skilful in the delineation of oxen, horses, dragons and tigers. In drawing figures and animals he completed his sketch with a single stroke of the brush, and of this style of working he is considered the originator." And we, 350 years later, pride ourselves upon the invention of impressionism and set up Manet as our high-priest! It is difficult in looking at Sesshiū's work to see in what way he invented a new style, and to understand the boast that he studied nature in his landscapes. If he be right, we and our Turners, our Constables, our Claudes, are lamentably wrong; and we may ask ourselves whether we ought not simply to *suggest* effects, to ignore sunlight and shadow, and to cease to try to represent nature as we are in the habit of doing. "The Hundred Cranes" is an example of those birds in every imaginable position — flying, poised on the air, standing, eating, swimming — and all faultlessly drawn. So also is its neighbor, a flying-squirrel. The "Philosopher and his Disciples" is an example of most perfect flesh-painting "after its kind," which for modelling reminds one of Holbein: there is all the apparent flatness, the want of strong effects of light and shade, and the intense individuality of expression and precision of drawing. It reminded me of some of Bastien-Lepage's portraits also — but, he, too, was avowedly a disciple of Holbein. Strange is it, that with all this perfection of drawing of the heads, the rest of the figures are formless and unfinished. Another most remarkable picture is a "Ghost" floating up out of space, the head, hair and shoulders, minutely painted; but the rest of the body fading away into the border. "A Landscape in Rain," gives the effect of storm and rushing water with a few strokes of the brush; but each stroke tells, and each curve has a meaning. This capacity of expressing much with very little apparent effort is shown in the figure of a woman, whose dress has no shade on it, but a few strokes express the turn of the body and the folds into which the drapery falls. "The Thousand Carp," like "The Hundred Cranes," is a *chef d'œuvre* of careful study. Looking at a shoal of carp as one might through the glass of an aquarium, we see them floundering about in

all kinds of positions, twisting and twirling about, and fading away in the distant water.

Some of the humorous pictures are very funny. "Tortoises on the March" is delicious in the rendering of the clumsy reptiles' efforts to run. "Turning the Tables" shows us a group of frogs riding and tormenting a snake. Some have on high hats, some carry fans, while others smoke and dance and otherwise disport themselves. Another picture of the same series shows us a cat tortured by rats and a man dragged in bonds by wolves, hares, rabbits, etc. — a subject to be suggested to sportsmen. The "Fox's Wedding" is exceedingly quaint also, parodying as it does the Japanese ceremony of marriage.

Of birds there are multitudes, all painted with equal dexterity, and one cannot but envy the men who can handle a brush with such facility and precision. Whether the future seat of art, the future great schools of painting will be in Japan, as the commissioners predict, is doubtful; we may learn much from the Oriental in decorative art, although we shall probably never equal them. But in pictorial expression we shall most likely keep our supremacy, because we progress. Our portraits may not equal Titian's, our subject-pictures certainly are a long way behind Raphael's, but yet, our art is living, because we see with our own eyes. Japanese art is conventional; like modern paintings of the Greek church, it differs little from what it was centuries ago. Pessimists may think that European art died in the sixteenth century, but never was there such a school of landscape-painting as in our own time, and latterly, a new line has been struck out in what may be called the poetry of common every-day life. While we are true to our modern instincts, while we look at Nature and really study her, we shall not go astray, but if we work upon the traditions of the past and see everything through dead men's eyes, we shall fail for the very same reason which is the main cause of the success of the Orientals — conventionality.

Even allowing that progress in European art ceased with the great Italians of the sixteenth century, still, up to that period, from the time of Cimabue, both painting and sculpture went through a continued course of development. Naturally, I mean development as regards knowledge of anatomy, of form, of color, and of general *technique*. As regards sentiment, perhaps there was more decadence than progress, arising from a change in feeling and in faith without a corresponding change in subject. The Greeks (and probably the Japanese also, could we judge their works from this point of view), passed through the same phase of art, continuing to produce subjects long after all faith in them had passed away. Hence, the decadence in Greek art in the early centuries of our era and in Italian art in the seventeenth century. But as soon as men perceived their error and determined to paint what was around and about them, art revived. The Flemish and Dutch schools, the Spanish, and later on the French schools, all developments one of another, show progress. In China and Japan, there has been nothing analogous to this. To connoisseurs there may be some slight difference in the various schools, but to the ordinary student their landscapes are all alike — there is not even the difference of style which we recognize in a Claude and a Turner. Then when we think of the treatment of landscape in a Mantegna or a Van Eyck, and in a Rubens, a Poussin, or a Constable, we see at once how essentially progressive all European art has been.

The Japanese Commissioners consider that the future schools of art will be seated in Japan and that we Occidentals shall flock there to study, but only on the condition that Japanese art returns to the lines of the fifteenth century, its purest period. This reminds one of the early Pre-Raphaelite movement in England. We all endeavored honestly to paint in the manner of the early Florentine artists and to see only through their spectacles. The craze did good; it enabled us to get out of the careless, sloppy manner which was then in vogue. But of the numbers who took it up, how many have remained faithful? Not half a dozen. Most of us have seen, like Millais, that it was only a means to an end. Revivals of all kinds do an immense amount of good; they rouse people out of sleep, they make them earnest, enthusiastic and thoughtful, and no doubt the Japanese are right in preaching a return to the best and purest periods of their art. Were they to try to assimilate their art to ours, they might succeed in the end as they have succeeded in grafting other Western ideas on to their own culture, but the world would lose an art which is unique, an art which is perfect in its own line, and which no other country can attempt to emulate. S. Beale.

Societies

German Technical Society of New York.

RESOLUTION regarding the Unsafe Large Groined Vault in the Assembly Chamber of the New Capitol at Albany, N. Y., passed in the regular session of the German Technical Society of New York, March 10, 1888: —

Whereas the German Technical Society of New York after a careful examination of treatises published by its Corresponding Secretary, H. W. Fabian, in the *American Architect and Building News* (October 29, 1881, and March 29, 1884), has been convinced that the dangerous condition of the large groined vault of the Assembly Chamber of the New Capitol at Albany, was justly and correctly criticised by him already some years ago, and

Whereas a development of the monumental building art, keeping pace with modern technical researches should be striven for,

Be it resolved that we indorse the following summary of Mr. Fabian's statements as fully corresponding with the facts and submit the same to the public:

1. The main cause of the instability of the vault is based upon the form of the inner construction, the lines of pressure in the bearing ribs considerably deviating from the middle lines. Hence follows an exceedingly unequal straining of material in the dangerous cross-sections and the existence in the outer fibres of strains of pressure considerably exceeding the allowable maximum. The resultant of the normal forces in the weakest cross-sections acting considerably outside of the central core, tensile strains are produced, which involve the cause of enormous deformation. These facts are sufficient to fully explain the endangered stability of the vault.

2. The construction of flying-buttresses, joined together by iron tie-rods in order to gain the balancing power between the horizontal thrusts of the smaller and larger arches, is not in accordance with the demands of sound vaulting architecture. Two arches will be in equilibrium if in both the product of the radius of curvature multiplied by the height of load both taken in the summit is equal. According to this law the problem might have been solved without employing flying half-arches and tie-rods. This manner of construction is objectionable on account of the unequal expansion of iron and stone; every change in temperature will cause a vibration in the arch system, which vibrations in the course of time might imperil the stability of the vault. It is not believed, however, that the essential causes of the present deformation are to be sought in this direction.

3. Nor can the stated unequal settling of the columns be seriously considered in judging of the deformation, it being in comparison insignificant with the great dimensions of the vault. Both faults, this as well as the aforenamed, might indeed contribute to the aggravation of the defective condition, but not of themselves cause of it.

4. The attempt of the architect to ceil the Assembly Chamber with a monumental stone construction can be but approved. The art of vault building, as it has come to us from the Middle Ages is, however, constructively impotent to cover areas of this size. The ceiling of our large modern halls with stone vaults can therefore only be attained, when in place of the historical vault-lines, there are employed mathematically developed arch-lines, which coincide with the lines of pressure. Then the material in all its parts would *be strained quite uniformly* and only influenced by pressure. The additional load as employed at Albany to improve the lines of pressure in the pointed arches could then be dispensed with and thus the total load be considerably decreased. There is no doubt that a groined vault built on such principles of construction can be employed for the Assembly Chamber at the Albany Capitol without fears as to its stability.

In the interest of progress in monumental architecture which is insolubly connected with the employment of stone as a building material, it is therefore to be desired that the Legislature should adopt a resolution to that end.

The adaptability of the old material in case of reconstruction of the vault undoubtedly deserves some consideration in the light of the foregoing. In behalf of the Society,

The Committee { Robert Stricker, Augustus Kurth, Max C. Budell, F. Knauer, E. A. Gieseler.

Communications

The Indiana Soldiers' Monument Competition.

Toronto, Can., April 12, 1888.

To the Editors of the American Architect: —

Dear Sirs, — In reference to the Indiana State Soldiers' and Sailors' Monument competition, can you tell me who has received the premium offered for the second best design. I am, yours truly,

One whose Design has not been returned.

[The second place, also, was awarded to a foreigner, an English architect, Mr. Percy G. Stone. — Eds. American Architect.]

New York, April 7, 1888.

To the Editors of the American Architect: —

Dear Sirs, — I feel sure it would give great pleasure to your subscribers to see published in the *Architect*, the prize design of the Indianapolis Soldiers' Monument competition, and, for comparative purposes, as many of the other designs submitted as are accessible.

Very respectfully, Alex. Doyle.

[The *Inland Architect* for April contains the designs offered by many of the best known architects in the country. — Eds. American Architect.]

REMOVING OIL STAINS.

Buffalo, N. Y., April 14, 1888.

To the Editors of the American Architect: —

Dear Sirs, — We would like to ask if there is any way to remove oil stains from a hearth of Corse Hill Sandstone — it is a perfectly smoothed rubbed surface and the stains show badly — would it help matters to oil the whole stone? Very truly yours,

Marling & Burdett.

[It is possible that fuller's earth or powdered French-chalk, if applied warm and under slight pressure, may absorb the oil if recently spilled. Oiling the whole stone would modify the evil, if the first coat were applied only to the untouched parts. — Eds. American Architect.]

NOTES AND CLIPPINGS

Rose-hedges as Snow-guards. — The plentiful experience of deep snow which Europe has had this winter has set practical men thinking of better means of protection against this great obstruction to traffic. And the question of defending lines of railway against snowdrifts has been raised in Austria and Hungary. A rose hedge is now said to be the most effective defence. More than a mile of one of the Hungarian railways has been this winter kept clear of drifts by a rose-hedge about six and one-half feet high and three and one-quarter feet thick, although this section of the line had always in previous years been liable to be blocked. The rose best adapted for this purpose is the rose of Provins, now incorrectly corrupted into the rose of Provence. But doubtless there are many other kinds equally serviceable; the essential thing is that the hedge shall offer a solid obstacle to the drifting snow. It will be a great improvement, certainly — apart from all practical considerations — if we could be induced to make our lines of railway blossom with the rose. At present the banks which border our lines are neither useful nor ornamental. Here and there a little kitchen garden flourishes, or a fowl-keeping station-master cultivates sunflowers for his birds. But there is no serious attempt either to grow cabbages or cabbage roses along the lines. In Brittany the lines run between small fruit gardens, with innumerable pear and apple trees trained espalter fashion at the sides, and the practical cultivation of fruit trees is adopted along the high-roads in Germany. We might take a leaf out of our neighbors' books either in the useful or ornamental direction. — *London Globe.*

Risks of Research. — The dangerous quests upon which enthusiastic chemists may embark are strikingly illustrated by the case of the yellow, oily substance called chloride of nitrogen. This terrible explosive was discovered in 1811 by Dulong, who lost one eye and three fingers in a vain attempt to ascertain its composition. So powerful is it that when Faraday and Sir H. Davy took it in hand, they provided themselves with thick glass masks to protect their eyes from flying bits of glass, and to some extent from the irritating vapors of the oil itself. Faraday was on one occasion stunned by the detonation of only a few grains of the compound, and bits of the tube in which it had been contained almost penetrated his mask. On another occasion Sir Humphrey Davy was severely injured by the explosion of a few drops under the receiver of an air-pump. Since their time the precise composition of the oil has been a mystery. At last, however, Dr. Gattermann, of Göttingen, has succeeded in its analysis. He finds that the substance examined hitherto was impure, and that the extreme danger of handling it was partly due to that fact and partly to the varying action of light. Any bright light, he has found, is enough to produce detonation, a discovery made by the sudden destruction of his apparatus by a stray sunbeam. Chemical research nowadays is apt to stray among the teeming pastures of organic chemistry, to the neglect of the old problems offered by the inorganic world, though the solution of these problems belongs to the highest efforts of experimental science. — *London Daily News.*

A Subterranean Chapel. — An El Paso despatch of April 9 to the St. Louis *Globe Democrat* says: An interesting discovery has been made in an old Spanish mine on the property of the Corralitos Cattle and Mining Company, on the Casa Grande River, in Northern Chihuahua, an immense estate belonging to El Paso and New York parties. The mine is called the San Pedro, and there is on it an old incline going into the mountain at an angle of forty-five degrees, and evidently following the richest ore streak in a zigzag manner. At the end of this incline a subterranean chamber was found, which had been fashioned evidently with great labor and trouble, into a regular Catholic chapel. The Chamber is some thirty feet high. Seats have been cut from the solid rock running all around the chapel, and so have been an altar and a pulpit. The whole was found neatly whitewashed, and presents a peculiar and weird aspect. The ancient chapel could be used at a moment's notice as a place of worship. The whole country adjacent to the Casa Grande and Santa Maria Rivers is full of objects of interest to the archæologist and naturalist. Prehistoric ruins are found everywhere, many of them clearly traceable to the Aztecs, but others evidently antedate any authentic records of history. A richer field of exploration and investigation cannot be found anywhere in North America.

Efluonne, the Universal Solvent. — *Iron* gives an interesting account of what it calls "the universal solvent," and which, it declares, though long known to modern chemistry, has only just been separated, and cannot even now be retained in its isolated state, simply because it destroys everything. This fury of the chemical world, it goes on to say, is the element efluonne. It exists peacefully in company with calcium in fluorspar, and also in a few other compounds, but when isolated, as it recently has been by M. Henry Moissan, is a rabid gas that nothing can resist. It combines with all metals — explosively with some. If they are already combined with some other non-metallic element, it tears them from it and takes them to itself. In uniting with sodium, potassium, calcium, magnesium and aluminum, the metals become heated even to redness by the fervor of its embrace. Iron filings, slightly warmed, burst into brilliant scintillations when exposed to it. Manganese does the same. Even the noble metals which, even at melting heat, proudly resist the fascinations of oxygen, succumb to this chemical syren at a moderate temperature. Glass is devoured at once, and water ceases to be water by contact with this gas, which, combining with its hydrogen, at the same moment forms the acrid glass-dissolving hydro-fluoric acid and liberates the ozone.

The Active Poison in Human Breath. — Professor Brown-Séquard has recently been making experiments to determine whether the human breath was capable of producing any poisonous effects. From the condensed watery vapor of the expired air he obtained a poisonous liquid, which, when injected under the skin of rabbits, produced almost immediate death. He ascertained that this poison was an alkaloid and not a microbe. The rabbits thus injected died without convulsions, the heart and large blood-vessels being engorged with blood. Brown-Séquard considers it fully proved that the expired air, both of man and animals, contains a volatile poisonous principle which is much more deleterious than carbonic acid. — *Science.*

TRADE SURVEYS

The customary statistics of trade, transportation and finance show very little change in business circles. The influences which have been controlling since the opening of the year still continue. Values point downward in some channels, in others they are steady, in a few prices are advancing. Production is kept under control and the restricted output in so many industries cannot help but restore the equilibrium. A few outside influences are at work, such as tariff agitations, but they are being discounted and a general improvement in business is looked for by midsummer. In the iron and steel industry demand is slack. The restriction in blast furnace output is 30,000 tons per week. Mill output is twenty per cent less. Rail-makers have sold one million tons this year and the most recent indications are more favorable. So far the mileage this year has been slightly over last year and a great deal of construction work is projected for the near future. The conclusion that there will be a collapse in railroad-building is not well based. The expansion of manufacturing, the development of mines, the outflow of population, all go to make continuous railway construction advisable as permanent investment, even though immediate returns are not assured. The often-repeated warnings as to the disastrous consequences to business from the investment of extraordinary amounts of capital have but little weight with investors, and enterprises of every character are engaging attention. Iron making is expanding in the South to an extent that is forcing Northern makers into still further efforts in the South. Car works, equipment establishments, stove works, ice manufacturies and shops for a hundred purposes are projected for erection this year. What is lost in railroad construction will be made up in other work. Two mines will be opened for one last year and productive capacity will be increased from one hundred and twenty tons annual coal output to one hundred and thirty million tons. The further and legitimate enhancement of lands West and South must continue, especially if the united efforts of Southern railroad managers and high church officials should be successful in deflecting the tide of immigration southward, as is to be tried. The development of lumber traffic promises to maintain the firm spring prices throughout the season. Chicago stocks are larger than a year ago, but the extending Western markets will probably lessen the supply of lumber that it will be necessary to throw on Eastern markets. Besides Southern yellow and sap pine will be twenty-five per cent more abundant this year and Eastern dealers are even now beginning to doubt whether, with the more restricted white-pine supplies, they can hold the Southern products at present prices. There will be a large amount of building in rural localities in the New England and Middle States this season, one cause being the desire of large and small manufacturers to move into smaller places where land and taxes are lower and other advantages are within reach. So far this season the projection of building work has not in the aggregate fallen below 1887, but its character is somewhat different. Country work will be more abundant. Railroad work is increasing. A larger number of public buildings will be erected. In the South manufacturing enterprise will not stop for repairs. In the Northwestern wheat-belt, elevators, both railroad and individual, are to be built. In general, railway equipments will be improved. Fewer vast enterprises will be launched, but no harm will come from this. Notwithstanding the notice served last year on brick-makers, it is said the supply will be so near actual requirements as to give makers quite comfortable margins. Prices will be firm throughout the Middle and Northwestern States. Contracts have been closed during the past month for the entire production for the season of a great many yards. Cement is active. Lath and shingle supplies will be ample, but this will be due to enlarged preparations in Michigan and three or four other States. Glass of all kinds will not decline, as importations will exercise a restraining influence. The works are all running full time and peace will prevail until the fires are put out in June. The flint strike continues. The spirit of trade combination is still at work among manufacturers of all kinds of building and constructive material, but the efforts made do not work to the detriment of builders. Price lists are modest. The slightest effort to put prices above a living limit jeopardizes a combination among producers or manufacturers where there is a considerable number to consult and assent. Productive capacity, it is apparent from attentive observation, is growing much faster than demand, at least as demand has been expanding within the past decade or two. Some controllers of large sums of money look for the compensating dulness or reaction, in which period enforced transfers of property will be made by the weaker to the stronger, who are generally the money lenders. An absorbing of little concerns into greater will set-in in time, especially in the South, where industrial enterprise is at fever heat. The bulk of investments made there are now prudently made with that end in view. If any disaster is awaiting the business world, it is not from the concentration of capital or the combination of producers. Their movements are controlled by agencies which they cannot evade and the best interest of the great public is conserved by forces, both economical and legislative, which develop themselves just at the right time.

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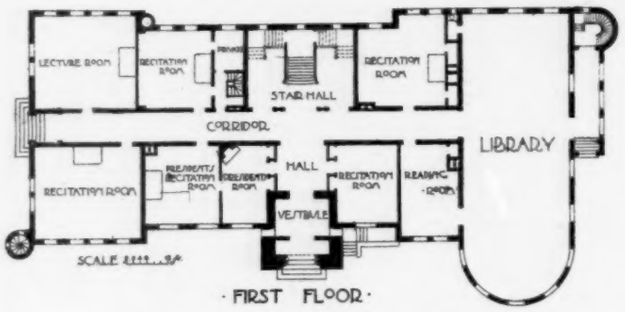

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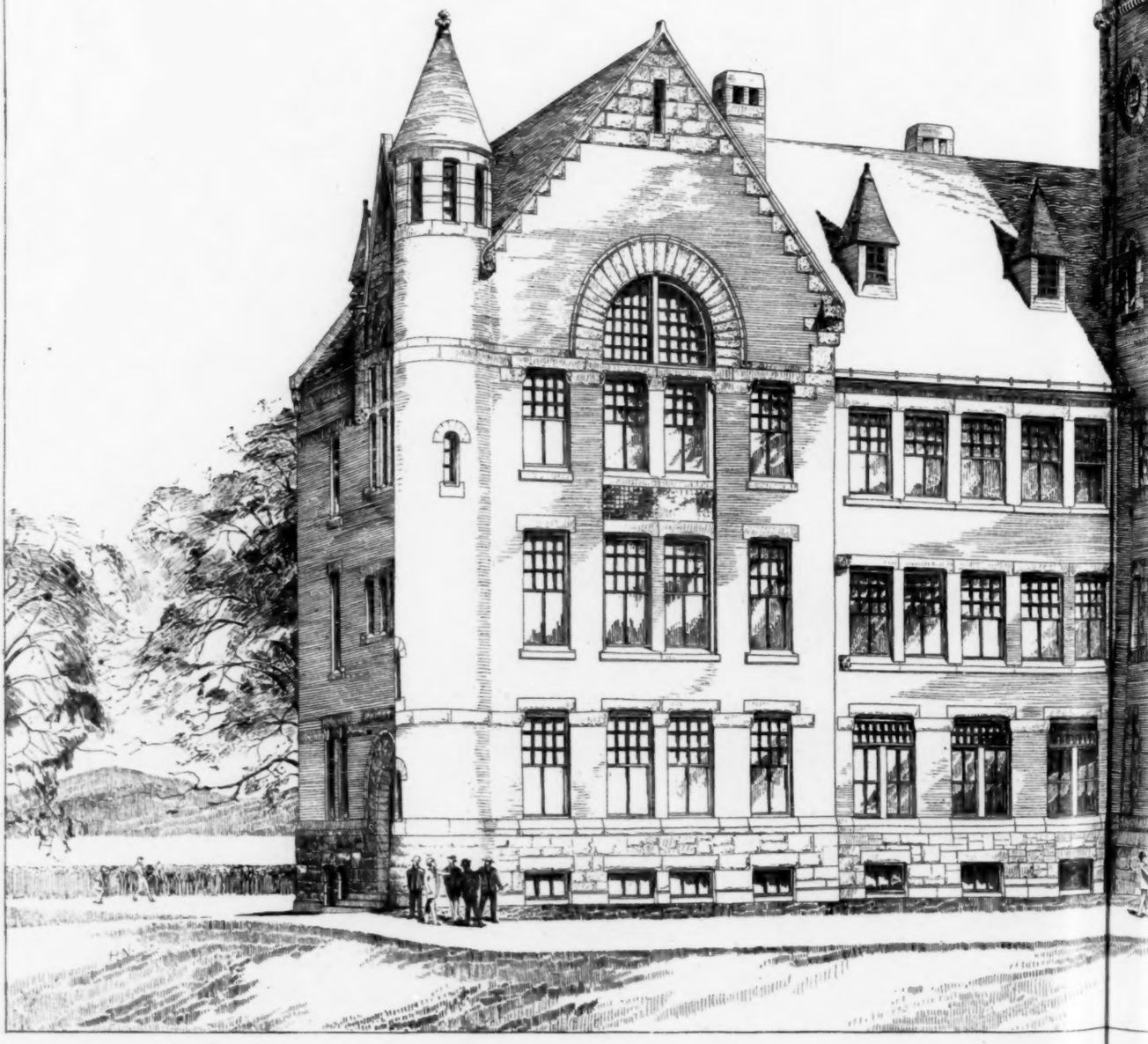

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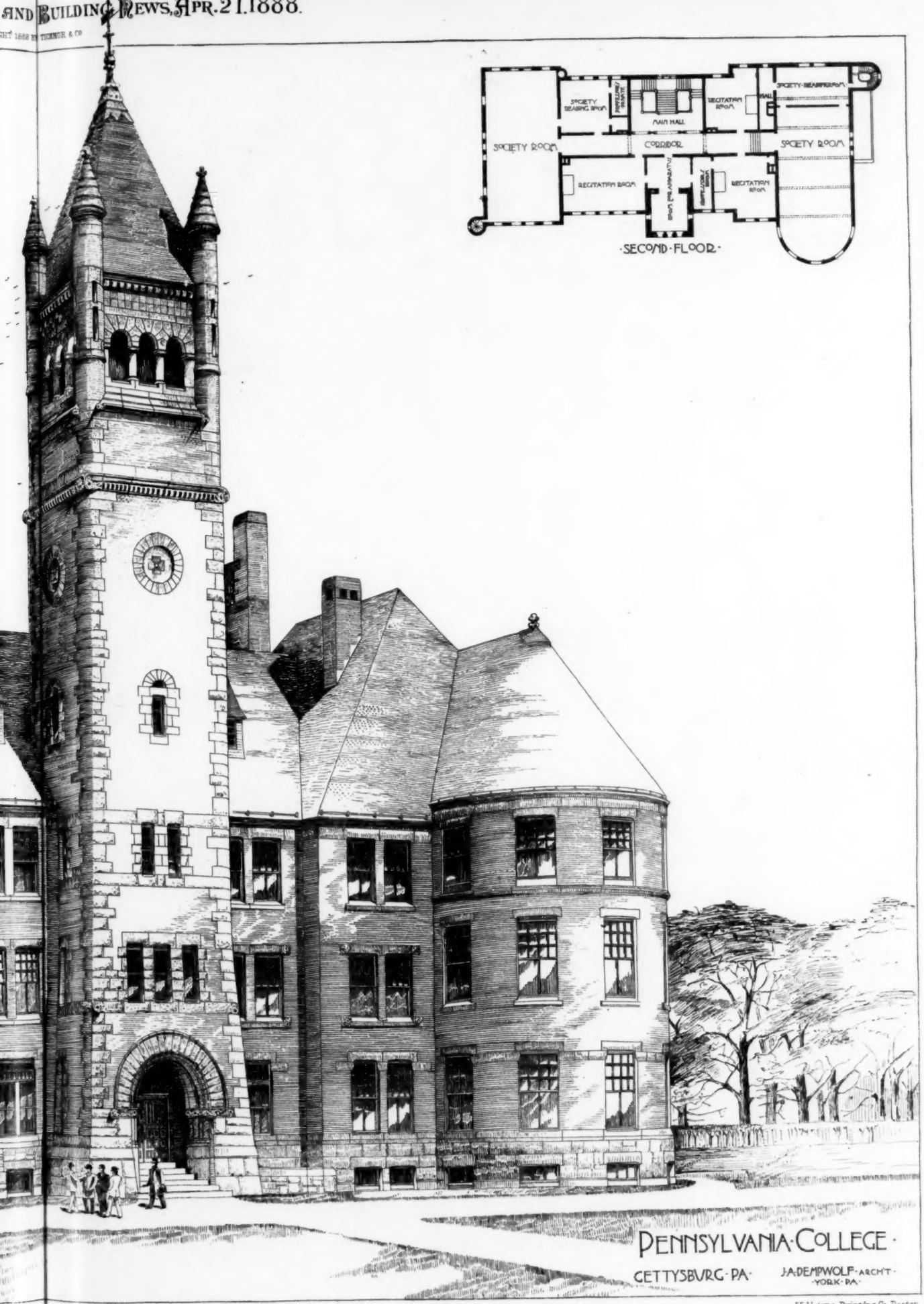

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